

## **ABSTRACT**

The invention includes a methods of treating or preventing a disease associated with an abnormal flora. The methods involves treating a patient suffering therefrom with an antimicrobial composition in an amount effective to inhibit or  
5 eliminate the bacteria. The antimicrobial composition can be an antibacterial agent and/or a probiotic mixture, and can be administrated alone or in combination. Disorders that can be treated by the present methods include Attention Deficit Disorder, Depression, biopolar disorder, Alzheimer's disease, Parkinson's Disease, Whipple's Disease, Tourette's Syndrome, Asperger's syndrome, Pervasive  
10 Development Disorder, early onset autism, Rhett's Syndrome, D-lactic acidosis, and schizophrenia. Gastrointestinal disorders can include antimicrobial associated diarrhea or inflammatory bowel diseases such as ulcerative colitis or Crohn's disease.